

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION

UNITED STATES OF AMERICA,	)	No. 20-CR-4081
)	
Plaintiff,	)	INFORMATION
)	
vs.	)	Count 1
	)	18 U.S.C. § 371: Conspiracy
JAY EARNEST NIDAY,)	
	)	Count 2
Defendant.	)	33 U.S.C. § 1319(c)(4): Knowingly
	)	Falsifying, Tampering With, or
	)	Rendering Inaccurate a Monitoring
	)	Device or Method Required to Be
	)	Maintained Under the Clean Water
	)	Act
)	

The United States Attorney charges:

Introduction

The Clean Water Act

Purpose and Definitions

1. The purpose of the Clean Water Act (“CWA”)¹ is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To accomplish its purpose, the CWA prohibits “the discharge of any pollutant by any person” into a water of the United States, except as the CWA authorizes. *Id.* §§ 1311(a), 1362(7), 1362(12). A “person” includes not only

¹The Federal Water Pollution Control Act of 1948, as amended by the Clean Water Act of 1977, Pub. L. 95-217, 91 Stat. 1566, and the Water Quality Act of 1987, Pub. L. 100-4, 101 Stat. 7 (Jan. 6, 1987) (codified as amended at 33 U.S.C. §§ 1251 *et seq.*).

individuals but also municipalities and their responsible corporate officers. *Id.* §§ 1319(c)(6), 1362(4), 1362(5).

2. As defined in the CWA, “discharge of a pollutant” means “any addition of any pollutant to navigable waters from any point source.” *Id.* § 1362(12). The term “pollutant” includes “sewage” and “industrial, municipal, and agricultural waste discharged into water.” 33 U.S.C. § 1362(6). A “point source,” in turn, is “any discernible, confined and discrete conveyance, including but not limited to any pipe . . . from which pollutants are or may be discharged.” *Id.* § 1362(14). “Navigable waters” include “the waters of the United States,” such as the Missouri River. *Id.* § 1362(7).

NPDES

3. A central feature of the CWA is a permit program, the National Pollutant Discharge Elimination System (“NPDES”). NPDES governs the discharge of pollutants into the waters of the United States. 33 U.S.C. § 1342. Under NPDES, any municipality that seeks to discharge a pollutant into a water of the United States must obtain a permit before doing so. *Id.* §§ 1311, 1342. That person must then comply with the NPDES permit’s requirements. *Id.* §§ 1311, 1342.

4. Generally, NPDES permits establish limitations on the amounts and concentrations of pollutants that may be discharged from a point source to a receiving waterway. 33 U.S.C. § 1311. NPDES permits may also include

requirements governing the sampling and analysis of wastewater, reporting, and recordkeeping. 33 U.S.C. §§ 1311, 1314, 1315, 1318.

5. Many NPDES limitations are in the form of restrictions upon the quantities, rates, and concentrations of specified substances discharged from point sources. The CWA's NPDES permit system transforms generally applicable standards into the obligations of the individual discharger.

6. Dischargers that comply with the limits and conditions in a NPDES permit are deemed to comply with the CWA. 33 U.S.C. § 1342(k). But any person who knowingly or negligently discharges a pollutant from a point source into a water of the United States without a NPDES permit—or in violation of a NPDES permit—is subject to criminal sanction. *Id.* § 1319(c).

A Federal-State Partnership

7. Although Congress vested the Administrator of the United States Environmental Protection Agency (“EPA”) with primary responsibility for implementing the CWA, the CWA reflects a stated “policy of the Congress to recognize, preserve, and protect the primary responsibilities of the States to prevent, reduce, and eliminate pollution, to plan the development and use . . . of land and water resources, and to consult with the Administrator in the exercise of his authority under” the CWA. 33 U.S.C. §§ 1251(b), 1361. Accordingly, under the CWA, the States may elect to administer their own NPDES programs. *Id.* § 1342(b).

8. Since 1978, the EPA has approved the State of Iowa, acting through its Iowa Department of Natural Resources (“IDNR”), to administer a NPDES program. At all times, however, the United States of America has retained the right to enforce the CWA and, in particular, NPDES permits within the State of Iowa. 33 U.S.C. § 1342(i).

9. Through the CWA’s State Revolving Fund (“CWSRF”) program, the EPA has spurred the creation of low-cost loan funds to help municipalities and others to offset the costs of wastewater infrastructure projects. 33 U.S.C. § 1381 *et seq.* With federal funding, individual state CWSRF programs recycle repayments of loan principal and interest earnings to finance new wastewater improvement projects. In Iowa, the IDNR administers a CWSRF program in partnership with the Iowa Finance Authority (“IFA”) and pursuant to an agreement with EPA. Iowa Code § 455B.291, *et seq.*; 265 Iowa Admin. Code (“IAC”) ch. 26; 567 IAC chs. 90-92.

The City of Sioux City’s Wastewater Treatment Plant

10. The City of Sioux City (“the City”) is an Iowa municipal corporation located in Woodbury County, Iowa, within the Northern District of Iowa. The City is a political subdivision of the State of Iowa and a “person” for purposes of the CWA. 33 U.S.C. § 1362(5).

The WWTP

11. In 1961, the City constructed a large regional sewage treatment plant, the Sioux City Wastewater Treatment Plant (“the WWTP”). The WWTP is located

at 3100 South Lewis Boulevard, Sioux City, Iowa, near what is now the intersection of Interstate Highway 29 and U.S. Route 20.

12. In addition to accepting wastewater from industrial, commercial, and residential sources within its own municipal boundaries, the City has entered into a series of intergovernmental agreements to accept the wastewater generated in a number of other states and municipalities. At all relevant times, the WWTP received wastewater from four other municipalities in three states, including Sergeant Bluff, Iowa; South Sioux City, Nebraska; North Sioux City, South Dakota; and Dakota Dunes, South Dakota.

13. The WWTP treats incoming wastewater (“influent”) from at least 20 significant industrial users throughout “Siouxland,” a three-state geographic region whose industrial base consists largely of agricultural and food-related processors. The WWTP’s industrial users produce a large volume of high-strength wastewater.

14. The City has long sought to recruit and retain agricultural and other industries that generate high-strength wastewater. The City uses the purported capacity of the WWTP to attract such industries in an ever-present economic development competition with other municipalities in Iowa and elsewhere.

The Missouri River and Disinfection Season

15. The City designed the WWTP so that it would discharge its final treated product (“effluent”) into the Missouri River, a water of the United States, by means of a pipe known as “Outfall No. 001.” At this point, IDNR classifies the Missouri River as a “Class A1” surface water because of heavy local recreational

use. In 2012, however, the IDNR also classified the Missouri River at this point as an “impaired water” because of pollution.

16. Because the City designed the WWTP to discharge its effluent into the Missouri River, the WWTP is subject to the requirements of the CWA, as implemented in Iowa by the IDNR. The CWA classifies the WWTP as a “publicly owned treatment works” (“POTW”), 33 U.S.C. §§ 1292, 1342(b). POTWs are a major source of water pollution in the United States, because POTWs receive the wastewater that the industrial, commercial, and residential sources within a given city or geographic region generate. As public entities, POTWs are funded with taxpayer dollars.

17. In light of the heavy recreational use of the Missouri River, proper disinfection is a critical part of the WWTP’s treatment process. Disinfection of a POTW’s wastewater helps to ensure a healthy aquatic and recreational environment in the receiving waterway. If insufficiently disinfected, a POTW’s wastewater may expose recreational users of the waterway to various pathogens, including bacteria, viruses, and protozoa.

18. As a condition for permission to discharge effluent into the Missouri River, the IDNR has required the City to disinfect the WWTP’s effluent from March 15 through November 15 of each calendar year. During this “disinfection season,” the Missouri River is warmer, and the level of the public’s recreational use of the Missouri River is higher.

19. During the “disinfection season,” the City also must monitor the WWTP’s effluent to ensure the WWTP’s disinfection process is properly functioning. For example, IDNR has required the City to monitor the WWTP’s effluent for “fecal coliform” or, since April 1, 2015, by means of periodic testing for *E. coli*. *E. coli* is a species of fecal coliform bacteria that is specific to fecal material from humans and other warm-blooded animals; its presence tends to indicate fecal contamination of the water. Monitoring is typically for fecal coliform or *E. coli*, as opposed to various individual pathogens of human disease, because there are many different pathogens; pathogens are more difficult to measure; the presence of one pathogen does not necessarily predict the presence of another pathogen; and a specific pathogen may not be present at the time of testing.

20. The EPA and IDNR trust municipalities to tell the truth and not to conceal problems at POTWs. The EPA and IDNR largely rely on self-reported results to determine whether a municipality is operating its POTW in compliance with the municipality’s NPDES permit. The accuracy of this information is paramount, because the effectiveness and integrity of the CWA is dependent upon truthful and accurate self-reporting.

21. For example, IDNR has required the City to report the results of all monitoring of the WWTP on a periodic basis in Monthly Operating Reports (“MORs”), also known as Discharge Monitoring Reports (“DMRs”). Whenever the WWTP exceeds its effluent limits, the City must report such violations to IDNR in its MORs.

Liquid Chlorine and Sodium Bisulfite

22. There are many different technologies by which a POTW may disinfect its wastewater. In the 2000s, the City converted the WWTP's existing gas chlorine disinfection system to a new system that used a sodium hypochlorite solution (hereinafter, "liquid chlorine") to disinfect the WWTP's wastewater stream.

23. Because liquid chlorine is toxic to fish and other aquatic life, and dangerous to recreational users, proper disinfection practices require the subsequent addition of sodium bisulfite to the wastewater stream to reduce the total residual chlorine ("TRC") in the POTW's effluent. Sodium bisulfite neutralizes sodium hypochlorite after the sodium hypochlorite destroys pathogens.

24. POTW effluent standards also thus may include limits on TRC in the POTW's effluent, in order to protect the environment.

The 2006 NPDES Permit

25. On October 25, 2006, IDNR issued the City NPDES permit No. 9778001 ("the 2006 NPDES Permit") for the WWTP. The 2006 NPDES Permit was issued for a five-year term and thus was due to expire on October 24, 2011.

26. The 2006 NPDES Permit contained standard monitoring and reporting requirements. For example, the 2006 NPDES Permit stated, "Samples and measurements shall be representative of the volume and nature of the monitored wastewater." IDNR required the City not only to test its effluent fairly and accurately, but also to report the results of all monitoring to IDNR on a periodic

basis in MORs. Whenever the WWTP exceeded its effluent limits, the City had to report the violation to IDNR in a DMR.

27. The 2006 NPDES Permit also contained special conditions for the City. These special terms and conditions of the 2006 NPDES Permit recognized that the WWTP was unable to produce effluent in compliance with Iowa's water quality standards unless the City first made substantial secondary treatment improvements to the WWTP. The 2006 NPDES permit included "interim" limits on the WWTP's effluent in exchange for a "compliance schedule" under which the City was required to complete certain construction improvements at the WWTP by June 15, 2011. The interim limits generally were less stringent than the final limits, and the final limits did not take effect until August 14, 2011.

28. For example, with respect to fecal coliform, the 2006 NPDES Permit imposed an interim limit of a daily sample maximum of 56,548 organisms/100 mL during the disinfection season. The corresponding final limit in the 2006 NPDES permit, effective August 14, 2011, was a daily sample maximum of 370 organisms/100 mL and a 30-day average of 200 organisms/100mL (calculated on a five-sample, geometric mean basis). The 2006 NPDES Permit also contained interim limits and final limits for TRC.

29. Specifically, with respect to fecal coliform, the City was required to collect at least five samples from its treated wastewater during each of the three partial three-month periods within the disinfection season (March-May, June-August, and September-November). In other words, the City was required to collect

15 samples for fecal coliform during the disinfection season, and to do so in certain intervals of time.

The 2015 NPDES Permit

30. Effective April 1, 2015, the IDNR issued the City a new five-year NPDES permit, No. 9778001, for the WWTP (“the 2015 NPDES Permit”). The 2015 NPDES Permit again stated, “Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.” In a letter attached to the 2015 NPDES Permit, IDNR specifically warned the City that “[a]ny disinfection system . . . shall be operated to comply with the limit during the entire disinfection season whenever wastewater is being discharged from Outfall 001.”

31. The 2015 NPDES permit replaced the fecal coliform standards in the 2006 NPDES Permit with new *E. coli* standards. The 2015 NPDES Permit set a limit of 126 org/100mL, calculated once again on a five-sample geometric mean basis during the disinfection season and with other particular testing interval requirements. The 2015 NPDES Permit also contained limits on TRC.

Fraudulent Testing and Reporting Procedures

32. Beginning no later than 2012, and continuing until at least June 2015, defendant JAY EARNEST NIDAY and Patrick James Schwarte, the WWTP’s Superintendent and Shift Supervisor, respectively, and others known and unknown to the United States Attorney, employed fraudulent testing and reporting procedures at the WWTP. Designed to deceive the IDNR and the EPA, these

fraudulent testing and reporting procedures violated, and concealed violations of, the 2006 NPDES Permit, the 2015 NPDES Permit, and the CWA.

33. On those days during the disinfection season on which the WWTP did not test its effluent for fecal coliform or *E. coli* ("non-testing days"), defendant JAY EARNEST NIDAY, Patrick James Schwarte, and other WWTP employees at their direction, or at the direction of others known and unknown to the United States Attorney, caused only minimal rates of liquid chlorine to be supplied to the WWTP's chlorine contact basin. These minimal rates of liquid chlorine on non-testing days were far less than what the WWTP's engineering design standards indicated should be supplied to the WWTP's chlorine contact basin to obtain proper disinfection of the WWTP's effluent. In any event, these minimal rates were clearly insufficient to ensure that the WWTP did not exceed the fecal coliform or *E. coli* limits in the 2006 NPDES Permit and the 2015 NPDES Permit, respectively.

34. By contrast, on the mornings of the fifteen NPDES-required testing days each disinfection season for fecal coliform or *E. coli* ("testing days"), defendant JAY EARNEST NIDAY and Patrick James Schwarte instructed the WWTP's first-shift operators to greatly increase the WWTP's liquid chlorine feed rates to rates that were exponentially higher than the rates used on non-testing days. Defendant JAY EARNEST NIDAY and Patrick James Schwarte directed the WWTP's operators to continue to feed these much higher rates until the operators were able to verify, by means of hand-held colorimeters, that the presence of liquid chlorine in

the chlorine contact basin had reached the colorimeters' maximum detectable level of 2.2 mg/L.

35. Once the chlorine contact basin was "maxed out" with liquid chlorine (usually within an hour or two), defendant JAY EARNEST NIDAY collected a fraudulent sample of the WWTP's effluent on testing days as if it were, in fact, representative of the WWTP's wastewater. Immediately thereafter, defendant JAY EARNEST NIDAY and Patrick James Schwarte ordered the operators to reduce the liquid chlorine feed rate back to minimal levels.

36. After collecting the fraudulent samples and reducing the liquid chlorine feed rate back to minimal levels, defendant JAY EARNEST NIDAY submitted the fraudulent samples to a laboratory. As defendant knew, it was certain that the laboratory would only detect levels of fecal coliform or *E. coli* well below the limits in the 2006 NPDES Permit and the 2015 NPDES Permit, respectively, because there were exceedingly high but non-representative levels of toxic chlorine in the chlorine contact basin when the sample was taken. Defendant JAY EARNEST NIDAY fraudulently reported the laboratory results to IDNR on the false and fictitious premise that the test results were representative of the WWTP's wastewater with respect to fecal coliform and *E. coli*.

37. To cover up their fraudulent testing and reporting procedure, and to hide the WWTP's violations of the TRC limits on testing days, defendant JAY EARNEST NIDAY and Patrick James Schwarte did not report the operators' "maxed out" 2.2 mg/L results to IDNR or collect a TRC sample contemporaneously

with defendant's collection of the fraudulent fecal coliform or *E. coli* samples. Instead, in the afternoon on testing days—well after the greatly increased amounts of liquid chlorine had dissipated from the chlorine contact basin, and when an insufficiently low rate of liquid chlorine was again being supplied to the WWTP's chlorine contact basin—defendant JAY EARNEST NIDAY and Patrick James Schwarte would test again for TRC. At this later time on testing days, defendant JAY EARNEST NIDAY and Patrick James Schwarte were certain the WWTP also would pass its TRC test, because only a minimal rate of liquid chlorine was being supplied to the chlorine contact basin at that time. Once again, this minimal feed rate of liquid chlorine was clearly insufficient to ensure the WWTP did not exceed its fecal coliform and *E. coli* limits, as the 2006 NPDES Permit and 2015 NPDES Permit required, respectively.

Count 1

Conspiracy

The Conspiracy and its Objects

38. Paragraphs 1 through 37 are incorporated here.

39. Beginning no later than 2012, and continuing until June 2015, in the Northern District of Iowa, defendant JAY EARNEST NIDAY, together with others known and unknown to the United States Attorney, knowingly and intentionally combined and conspired to defraud the United States by impeding, impairing, obstructing, and defeating the lawful governmental functions of a government agency, namely the Environmental Protection Agency ("EPA"), and to commit

offenses against the United States, to wit, the violation of law charged in Count Two below.

Manner and Means of the Conspiracy

40. It was a part of the conspiracy that the co-conspirators did by deceit, craft, trickery and dishonest means, defraud the United States by interfering with and obstructing the lawful governmental functions of the EPA, in that the co-conspirators did knowingly falsify, tamper with, and render inaccurate a monitoring device and method required to be maintained under the CWA.

41. It was part of the conspiracy that the co-conspirators did employ a fraudulent testing procedure which ensured that the City would always pass its effluent tests for fecal coliform, *E. coli*, and TRC. In violation of the 2006 NPDES Permit and the 2015 NPDES Permit, samples and measurements submitted by the City for the WWTP were not representative of the volume and nature of the monitored wastewater.

Overt Acts

42. In furtherance of the conspiracy and to effect the objects of the conspiracy, the following overt acts, among others, were committed by the co-conspirators in the Northern District of Iowa:

a. On or about May 15, 2015, submitting a DMR to IDNR, “certif[ied] under penalty of law” to be “true, accurate, and complete,” which stated that the WWTP’s effluent for *E. coli* tested at 19 org/100mL, 10 org/100mL, 61 org/100mL, 8 org/100mL, and 44 org/100mL on *E. coli* testing dates under the 2015 NPDES Permit;

b. No later than 2012, and continuing until at least June 2015, discharging wastewater into the Missouri River;

c. From about April 23, 2013, through about April 10, 2015, applying for, and receiving, no less than \$5,758,982.03 in CWSRF funds from IFA to fund construction projects at the WWTP, i.e., "Asset Renewal Project (Phase 3)"; and

d. In December 2012, receiving a construction permit from IDNR to begin "Phase 3" improvements to the WWTP, which included "master planning services."

43. This was in violation of Title 18, United States Code, Section 371.

Count 2

Knowingly Falsifying, Tampering With, or Rendering Inaccurate a Monitoring Device or Method Required to Be Maintained Under the Clean Water Act

44. Paragraphs 1 through 37 are incorporated here.

45. Beginning no later than 2012, and continuing until June 2015, in the Northern District of Iowa, defendant JAY EARNEST NIDAY, and others known and unknown to the grand jury, knowingly falsified, tampered with, and rendered inaccurate a monitoring device and method required to be maintained under the Clean Water Act.

46. This was in violation of Title 33, United States Code, Section 1319(c)(4).

PETER E. DEEGAN, JR.
United States Attorney

By: /s/ Timothy L. Vavricek

TIMOTHY L. VAVRICEK
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